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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,195	10/02/2003	David Croop		9624
7590	02/15/2005		EXAMINER	
R. Christian Macke 40 East 10th Street Newport, KY 41071			MANAHAN, TODD E	
		ART UNIT	PAPER NUMBER	
		3732		

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/677,195	CROOP ET AL.	
	Examiner Todd E. Manahan	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 November 2004.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5,8,9 and 11-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5,8,9 and 11-21 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 02 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                             |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|                                                                                                                        | 6) <input type="checkbox"/> Other: _____                                    |

*Specification*

The use of the trademark VITON has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

*Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is indefinite because it appears to be reciting the same element of the invention as base claim 1. Claim 12 recites a “means for precise titration of air and water”. According to applicant’s disclosure this means is the pushbutton air and water valves (page 20, lines 17-19) and thus is the same element as the “air valve means” and “water valve means” of base claim 1.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 11-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Detsch (United States Patent No. 4,629,425) in view of Gonser et al. (United States Patent No. 5,045,055).

Detsch discloses a dental mirror comprising an elongated handle; a reflective surface 104 affixed to a first end of the handle; means for communicating air through the handle to at least one air orifice 70 directing air at the reflective surface; means for communicating water through the handle to at least one water orifice 74 directing water at the reflective surface; an air valve 40 positioned on the handle for controlling air flow to the air orifice; and a water valve 50 positioned on the handle for controlling water flow to the water orifice. The reflective surface is attached to the handle by means of an externally threaded screw and an internally threaded sleeve. Detsch does not disclose the valve means as being field replaceable valves. Gonser et al. disclose a dental handpiece having field replaceable pushbutton valves for the air and water lines so that the dentist can replace the valves and O-rings at the office (see col. 6, lines 24-53). The O-rings are autoclavable (Col. 6, lines 16-21). It would have been obvious to one skilled in the art to provide the device of Detsch with field replaceable valves as disclosed by Gonser et al. in order to permit the dentist to readily replace worn O-rings and valves in the office setting. With regard to claim 13, note figure 1 of Detsch showing the valves linearly offset. Regarding claim 17, Gonser et al. hold the valves in the handpiece via set screws, which constitute "retaining pins".

Claims 1-4, 13-15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman (United States Patent No. 3,001,288) in view of Gonser et al. (United States Patent No. 5,045,055).

Freedman discloses a self cleaning dental mirror comprising an elongate handle, a reflective surface removably attached to the handle, and means 10,13 communicating air and water thru the handle to respective outlets 19a,19b (see figs. 5-7 and 11). Freedman however does not disclose the valve means on the handle with the valve means being field replaceable valves. Gonser et al. disclose a dental handpiece having field replaceable pushbutton valves for the air and water lines on the handle so that the dentist can replace the valves and O-rings at the office (see col. 6, lines 24-53). The O-rings are autoclavable (Col. 6, lines 16-21). It would have been obvious to one skilled in the art to provide the mirror of Freedman with field replaceable valves on the handle in view of Gonser et al. in order to allow fingertip control of the air and water and also permit ready replacement of the valves. Regarding claim 14, Gonser et al. also disclose connecting the handpiece to air and water supply lines using quick connect couplings to permit easy removal thereof for sterilization of the handpiece. It would have been further obvious to one skilled in the art to provide the mirror of Freedman with quick connect couplings to the supply lines in view of Gonser et al. in order to permit the mirror to be readily removed therefrom for sterilization. Regarding claim 17, Gonser et al. hold the valves in the handpiece via set screws, which constitute "retaining pins".

Claims 5, 8, 9, 18, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freedman in view of Gonser et al. as applied to claims 1 and 4 above, and further in view of Johnston (United States Patent No. 2,984,909).

Johnston discloses a dental mirror attached to a fluid supply having means 73,69 for aligning the mirror with respect to the handle and the fluid nozzle (see col. 2, lines 25-36) and preventing rotational translation relative thereto. To provide the mirror of the combination of

Freedman as modified by Gonser et al. with means for aligning the mirror with the fluid nozzle and hence the push button valves, would have been obvious in view of Johnston in order to assure proper alignment of the mirror with the nozzles for effective cleaning thereof. Regarding claim 9, Freedman discloses a clamp 71 which prevents longitudinal translation of the mirror relative to the handle.

***Response to Arguments***

Applicant's arguments with respect to claims 1-5, 8, 9, 11-21 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd E. Manahan whose telephone number is 571 272- 4713. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571 273-4720. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Todd E. Manahan  
Primary Examiner  
Art Unit 3732

T.E. Manahan  
8 February 2005

